Project 4_Group1

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Proposal- DFW Home Buying Market

Introduction

Texas is experiencing a steady rise in the price of homes and rent in recent months. Our group will look at the Dallas-Fort Worth housing market within the last 6 months. We will explore housing prices related to area, square feet, room size, etc.

What Are We Predicting

We hope to create a prediction model where website visitors are able to predict how much their house would sell for by taking into consideration home features. In addition with price, we hope to predict the days on the market it will take to close.

Data Set

One of our group members has a realtor license and was able to export data from NTREIS (North Texas Real Estate Information). We have narrowed our search to DFW single homes. https://ntreis.net/accessing-ntreis-data/accessing-ntreis-data-agents/

Another dataset we would like to include is census data. This data can provide further in depth analysis to describe the DFW area to potential buyers and sellers.
https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.2020.html

Roles and Responsibilities
Machine Learning: Brandilyn, Yvonne
Tableau: Elyssa, Megan
Website Design: All
PowerPoint: All
Report: All

Basic Design Concepts for Dashboard
Color Theme: Blue, Red, White.

Our color choice is representative of our home state and our source of data.
We would like to include a map visual and use colors to reflect how expensive a house is. For example the darker the blue the more expensive the houses are in that area. We will use dynamic filters on the dashboards for users to filter by neighborhood, price, and home characteristics. We will use line, bar, and other graphs to visualize the housing data.

Inspiration
We have included links to all inspiration we have found thus far.

This website provides Texas Quarterly Housing Reports. We really like to use this as inspiration for our tableau visuals.
https://www.texasrealestate.com/market-research/quarterly-housing-report/
https://www.texasrealestate.com/wp-content/uploads/TexasRealEstateYearInReview_2021.pdf

Interactive DFW Housing Dashboard created that is similar to how we want to display some of our data
https://www.recenter.tamu.edu/data/housing-dashboard/

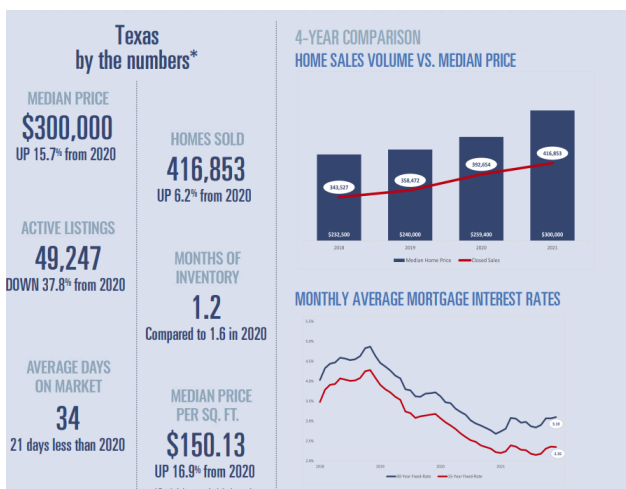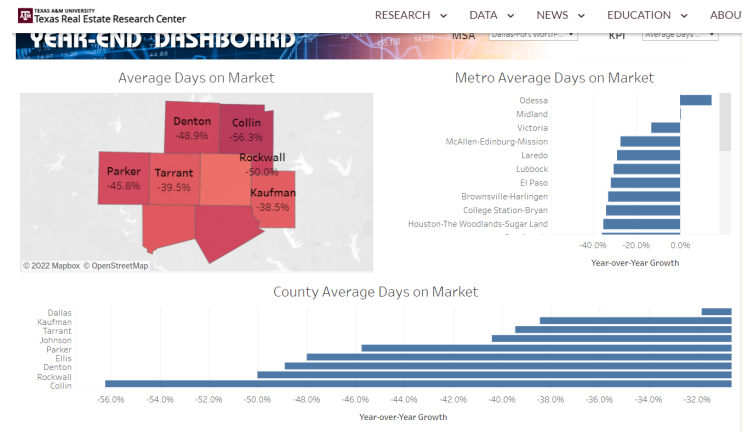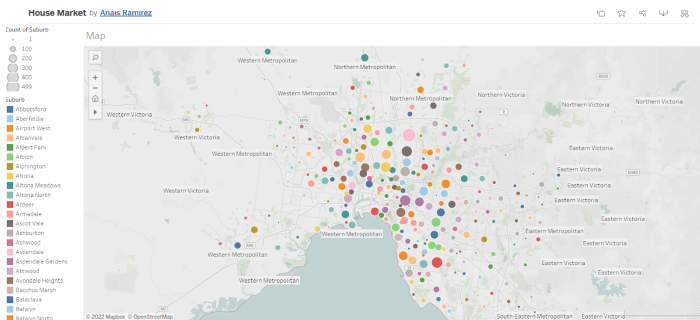This notebook did a similar prediction but to Austin housing, that we will use as inspiration.
https://www.kaggle.com/code/threnjen/austin-housing-eda-nlp-models-visualizations

House price prediction notebook found on kaggle we can reference.

https://www.kaggle.com/code/kenywhite/house-price-prediction

For our use of census data, this dashboard is a great inspiration of how we want to use the data and tie it in with our NTREIS zipcodes

https://public.tableau.com/app/profile/us.census.bureau/viz/2020CensusPopulationandHousingMap/AllStates